

FIG.1

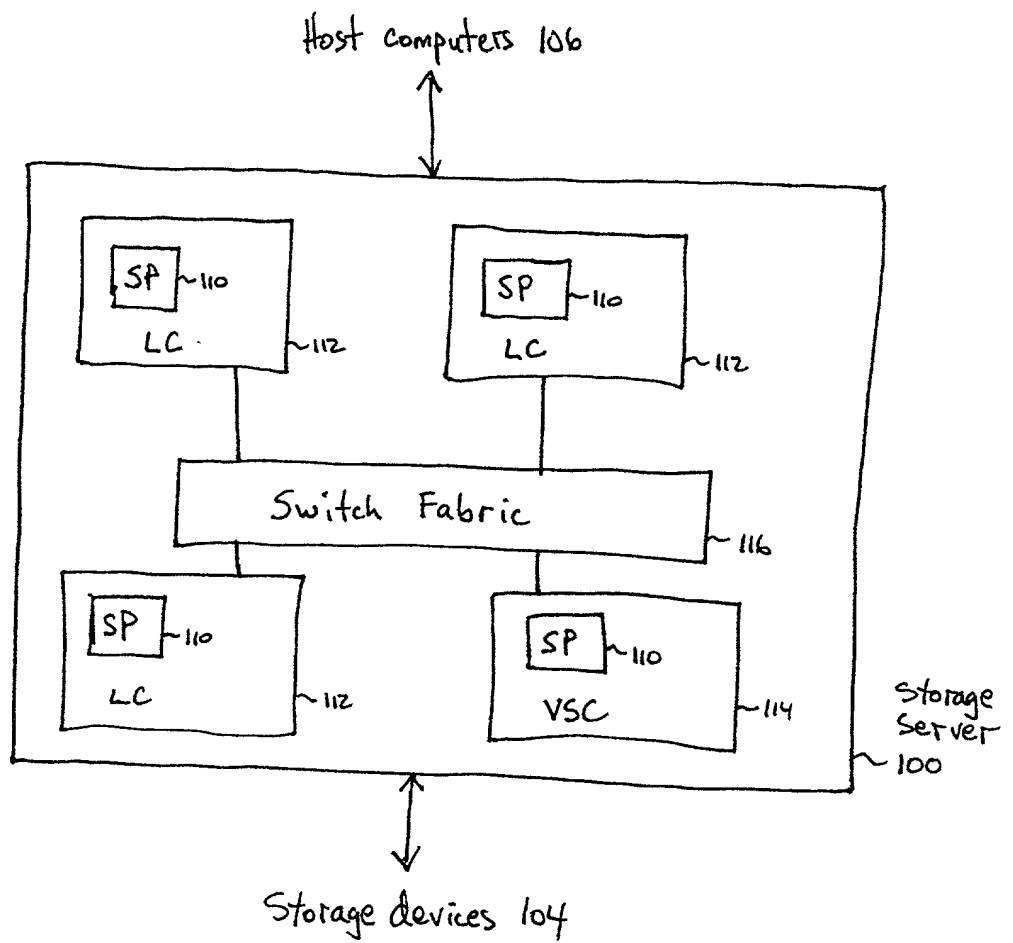


FIG. 2A

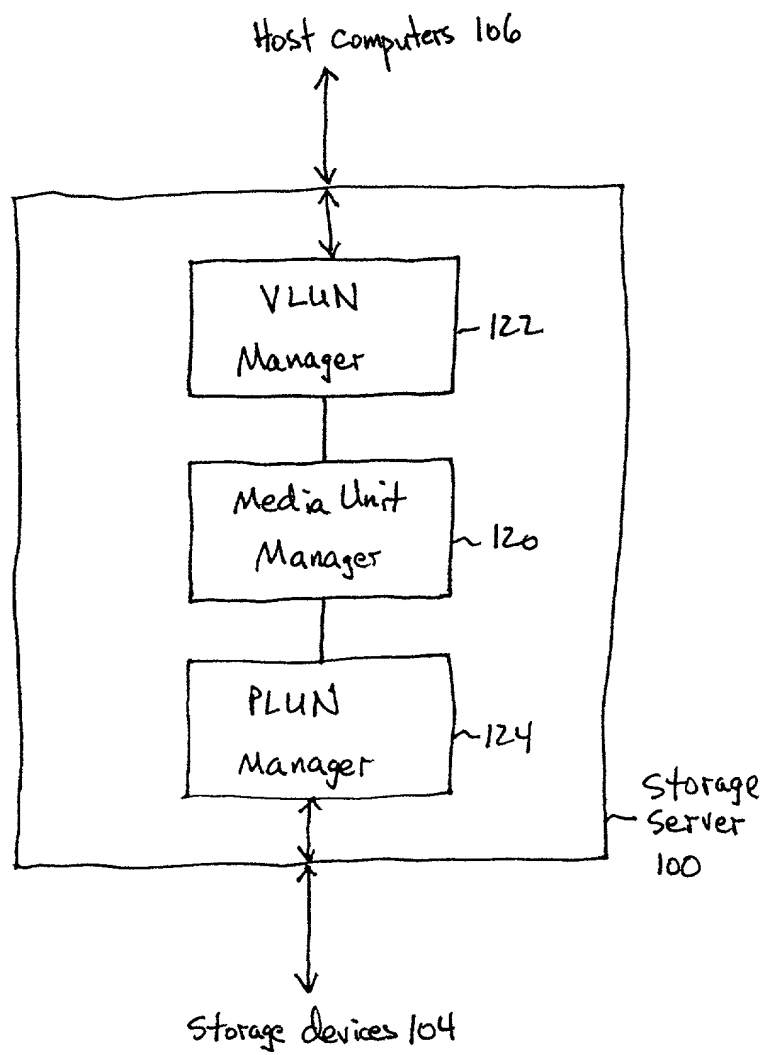


FIG. 2B

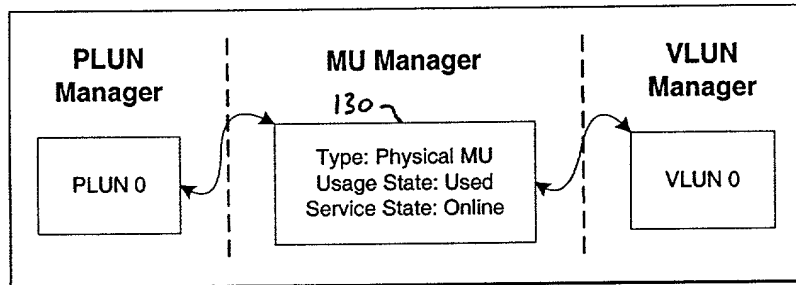


FIG. 3

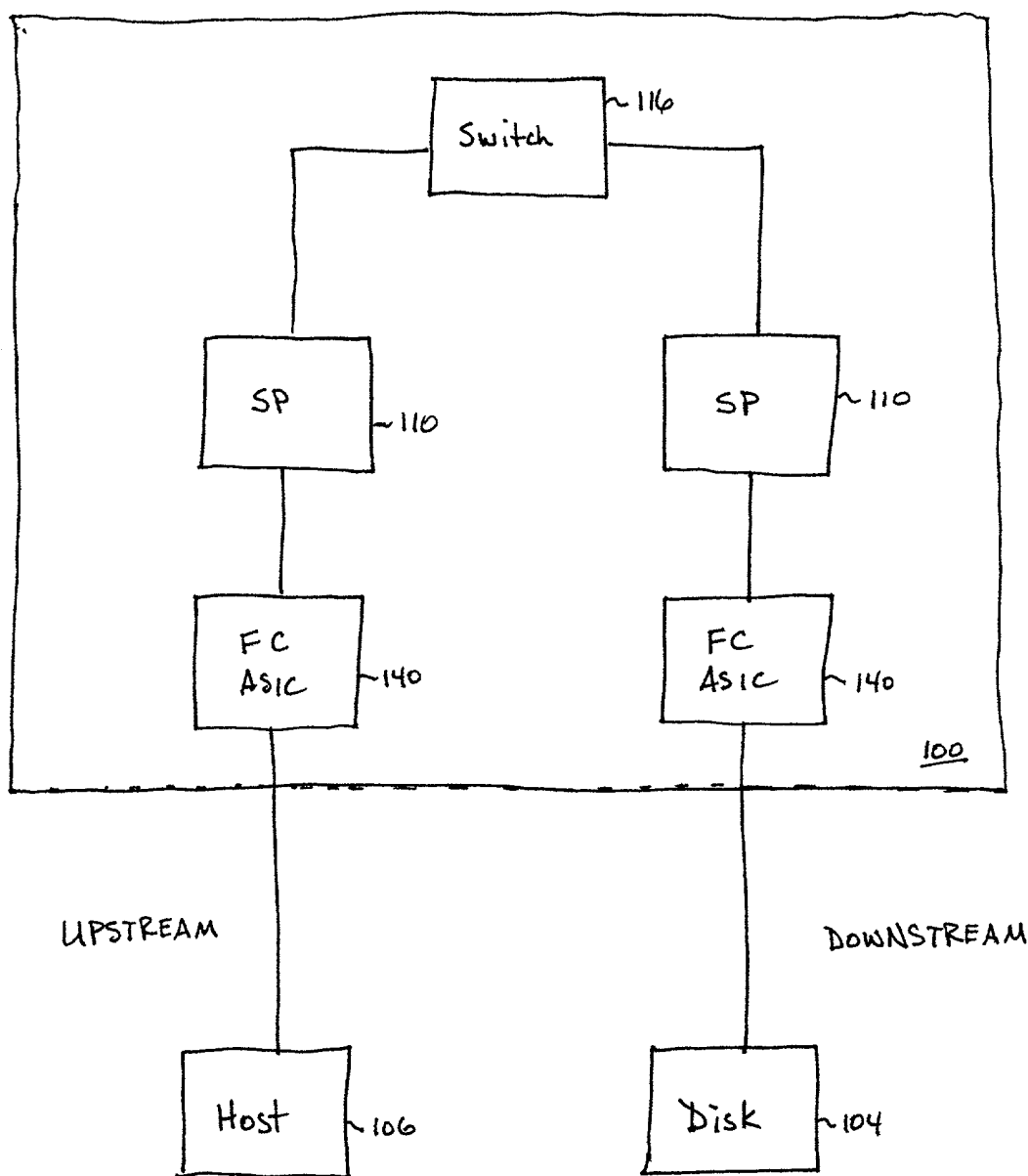


FIG. 4

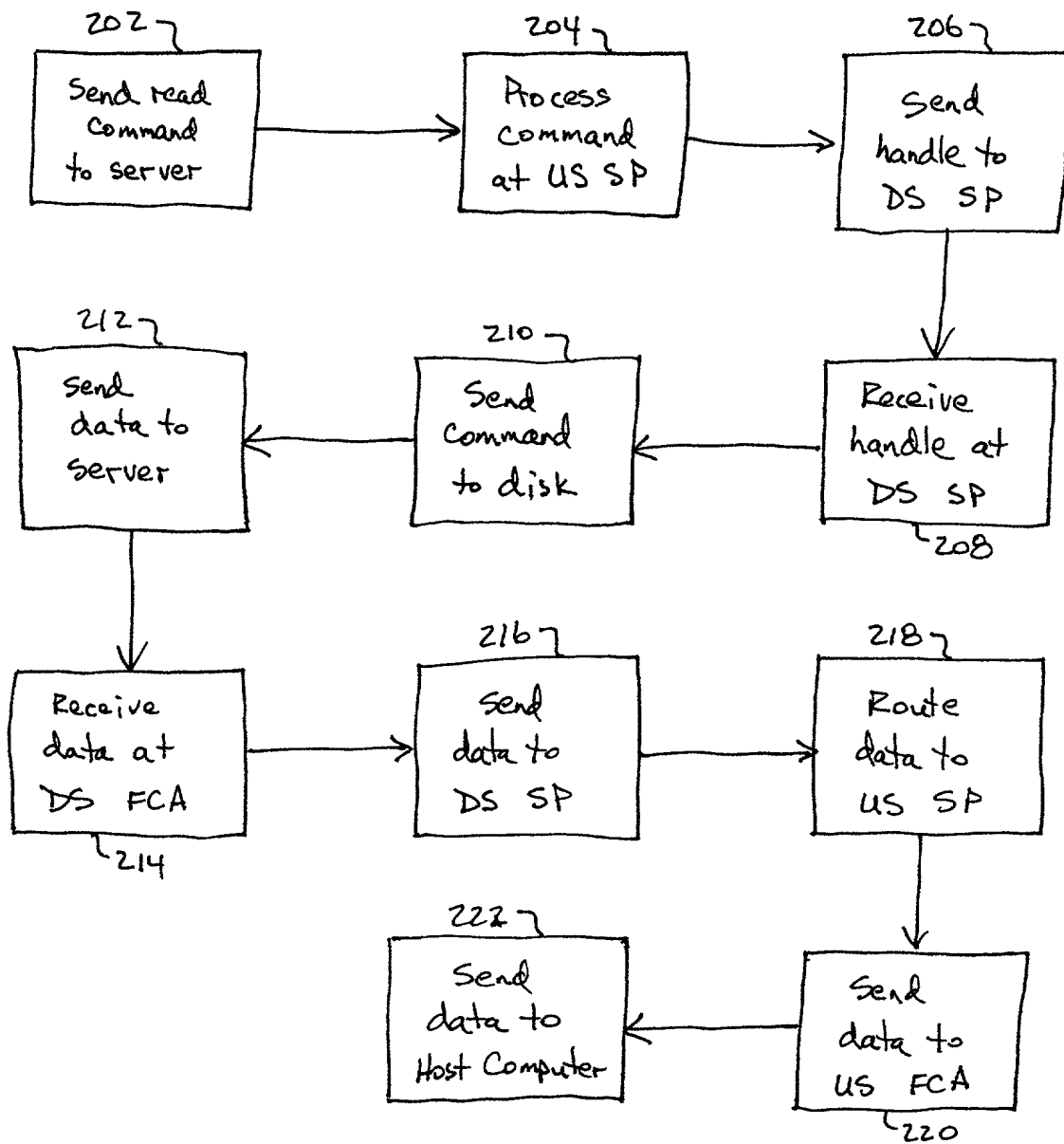


FIG. 5

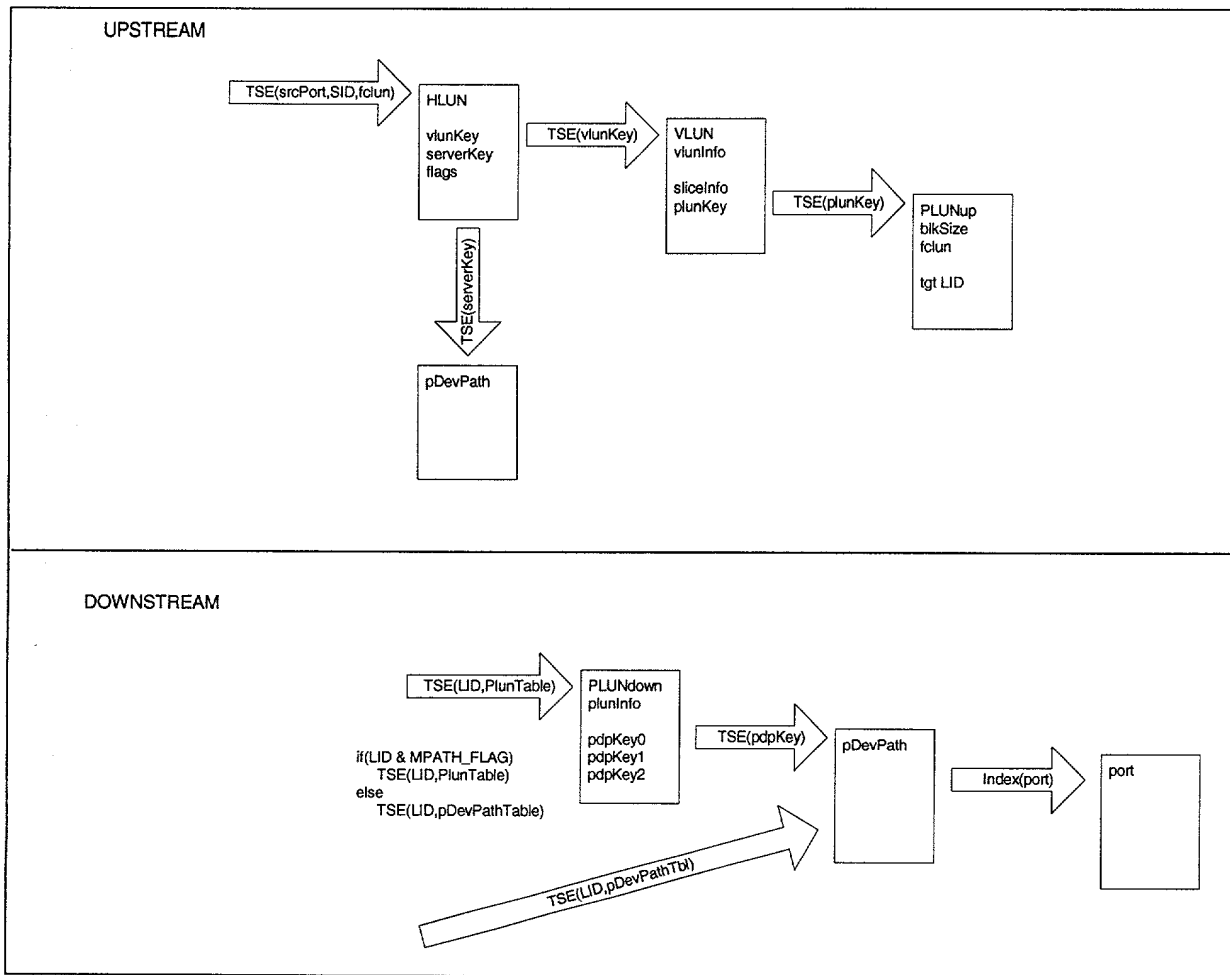
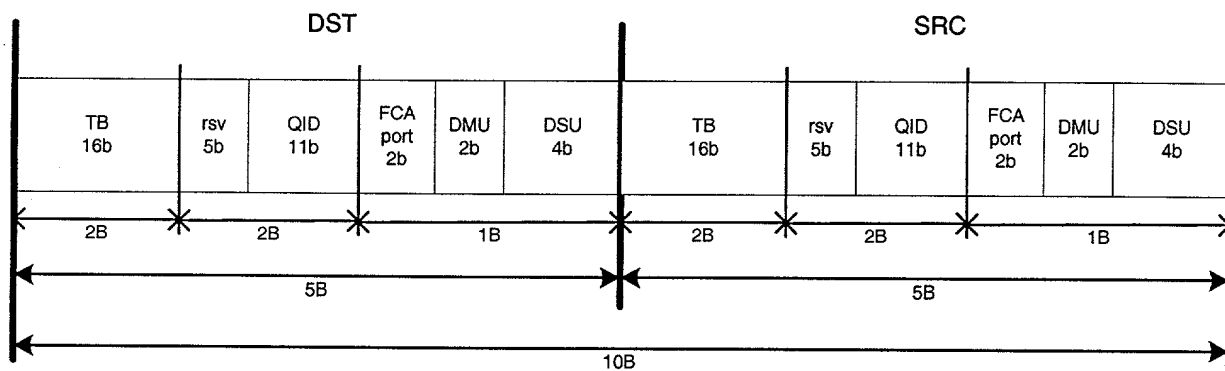


FIG. 6



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FIG. 7

2025-04-04 10:00:00

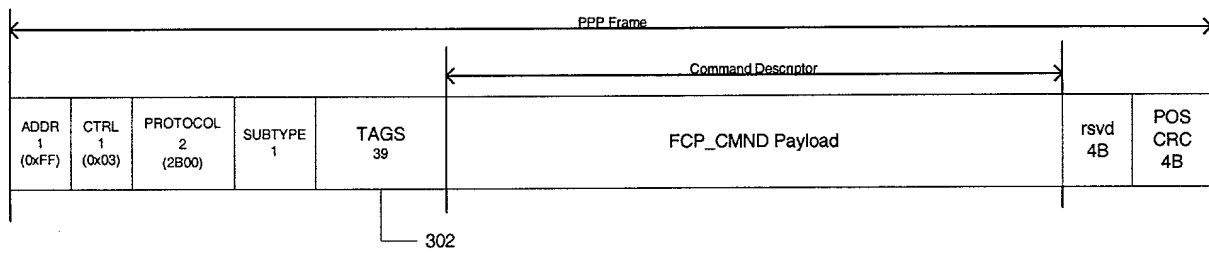


FIG. 8

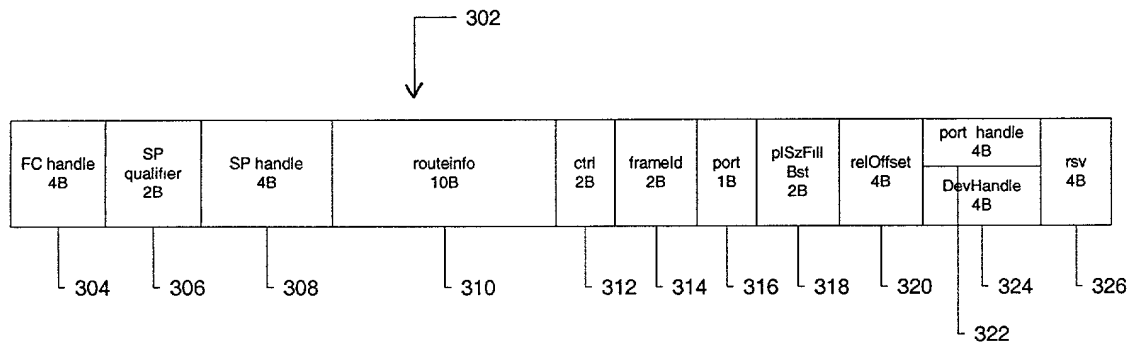
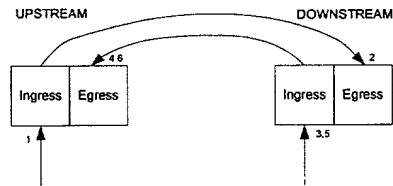


FIG. 9



UPSTREAM INGRESS COMMAND (1)

FCP

1. Allocate loCB
2. Copy loCB header to scratch1
3. Extract ownId, peerId into loCB

SM

1. Look for hLun(SID,FCLUN,port)
2. Save startLBA,numBlks

LM

1. From HLUN, look for VLUN
1. Find affected PLUN slice and insert the pHandle into frame header.
2. Insert target blade into FCBpage
3. Insert target E-DS or target DMU
4. Updates startLBA, numBlks

SM

1. Build CDB in datapool

FCP

1. Send command frame downstream

DOWNSTREAM EGRESS COMMAND (2)

FCP

1. Allocate loCB
2. Save srcBlade from FCB
3. Respond with loCB handle back to upstream

LM

1. Depending on pHandle MCAST bit, look up the PLUN OR look up pDevpath
2. Look up pDevpath if not yet resolved
3. Look up OWN FCPORT table
4. Update return registers for FCP to indicate target D_ID and source S_ID

FCP

1. Update the FC header
2. Send command frame out to wire

DOWNSTREAM INGRESS DATA (3)

FCP

1. Look up loCB

SM

1. Update byte counts

FCP

1. Ship data upstream

UPSTREAM EGRESS DATA (4)

FCP

1. Look up loCB

SM

1. Update byte counts

FCP

1. Ship data out to wire

DOWNSTREAM INGRESS STATUS (5)

FCP

1. Look up loCB
2. Ship to upstream status
3. Deallocate loCB

UPSTREAM EGRESS STATUS(6)

FCP

1. Look up loCB

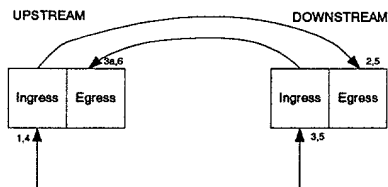
SM

1. Build response code

FCP

1. Ship to server status
2. Deallocate loCB

FIG. 10



UPSTREAM INGRESS COMMAND (1)

FCP
1. Allocate loCB
2. Copy loCB header to scratch1
3. Extract owmid,peerId into loCB

SM
1. Look for hLun(SID,FCLUN,port)
2. Save startLBA,numBlks

LM
1. Get pLun and insert the pHandle into frame header.
2. Insert target blade into FCBpage
3. Updates startLBA, numBlks

SM
1. Build CDB in datapool

FCP
1. Send command frame downstream

DOWNSTREAM EGRESS COMMAND (2)

FCP
1. Allocate loCB
2. Save srcBlade from FCB

LM
1. Look up the pLun and pick a path
2. Save pLun and path index into loCB

FCP
1. Send command frame out to wire

DOWNSTREAM XFER RDY(3)

FCP
1. Look up loCB
2. Send XFER_RDY upstream with command handle

UPSTREAM INGRESS DATA(4)

FCP
1. Look up loCB

SM
1. Update byte counts

FCP
1. Ship data downstream

DOWNSTREAM EGRESS DATA(5)

FCP
1. Look up loCB

SM
1. Update byte counts

FCP
1. Ship data out to wire

DOWNSTREAM INGRESS STATUS (5)

FCP
1. Look up loCB
2. Ship to upstream status
3. Deallocate loCB

UPSTREAM EGRESS STATUS(6)

FCP
1. Look up loCB

SM
1. Build response code

FCP
1. Ship to server status
2. Deallocate loCB

FIG. 11

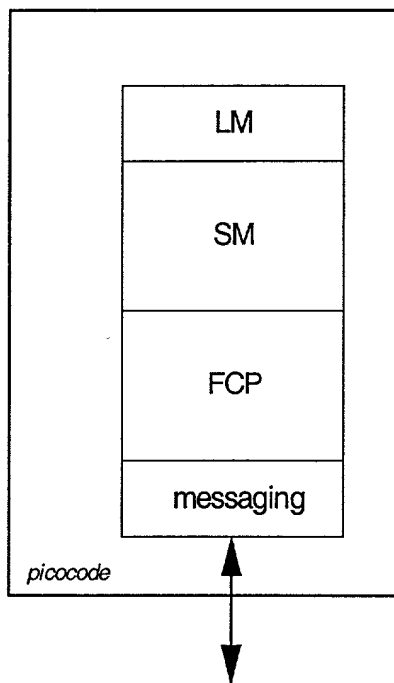


FIG. 12

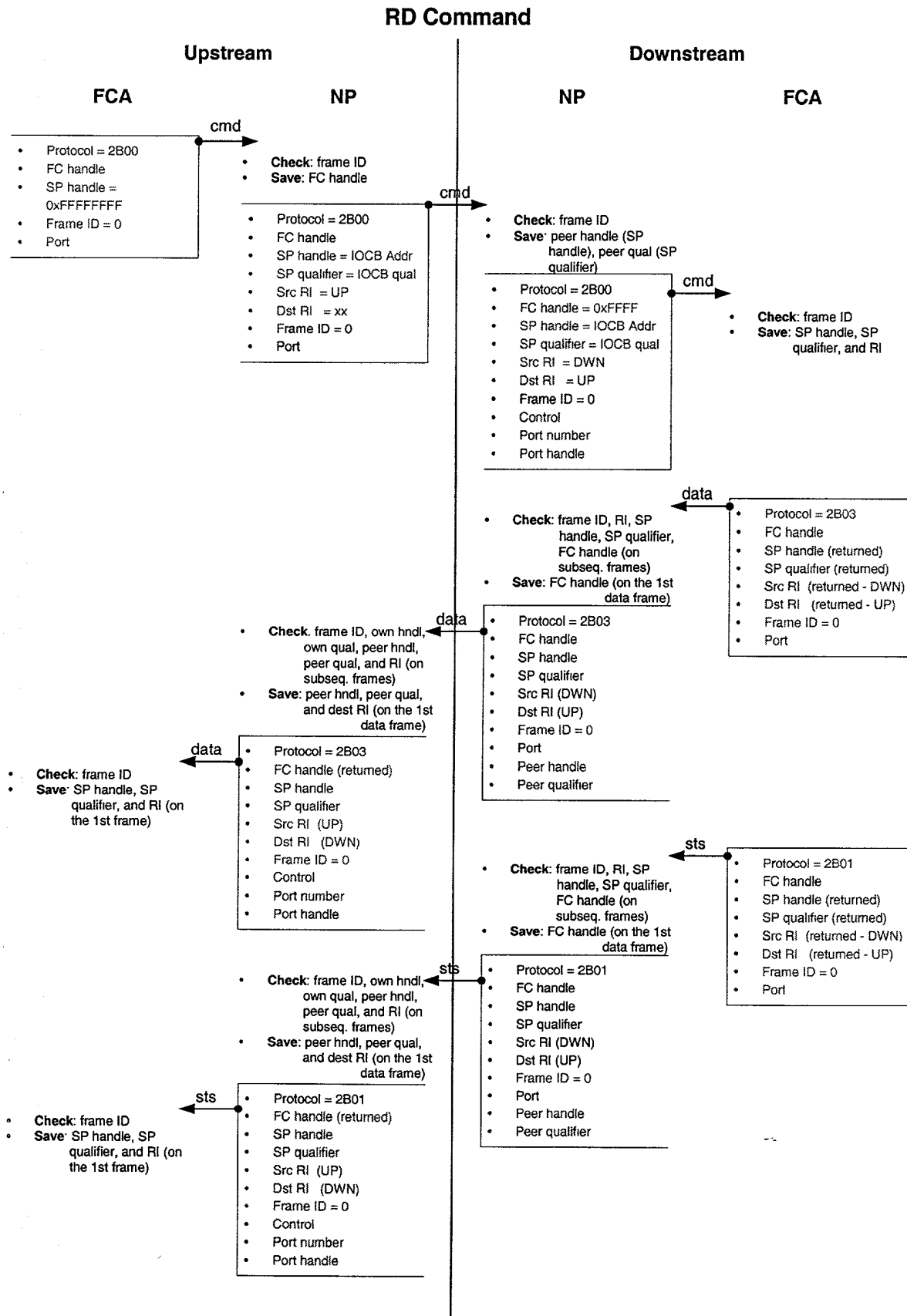


FIG. 13

WR Command

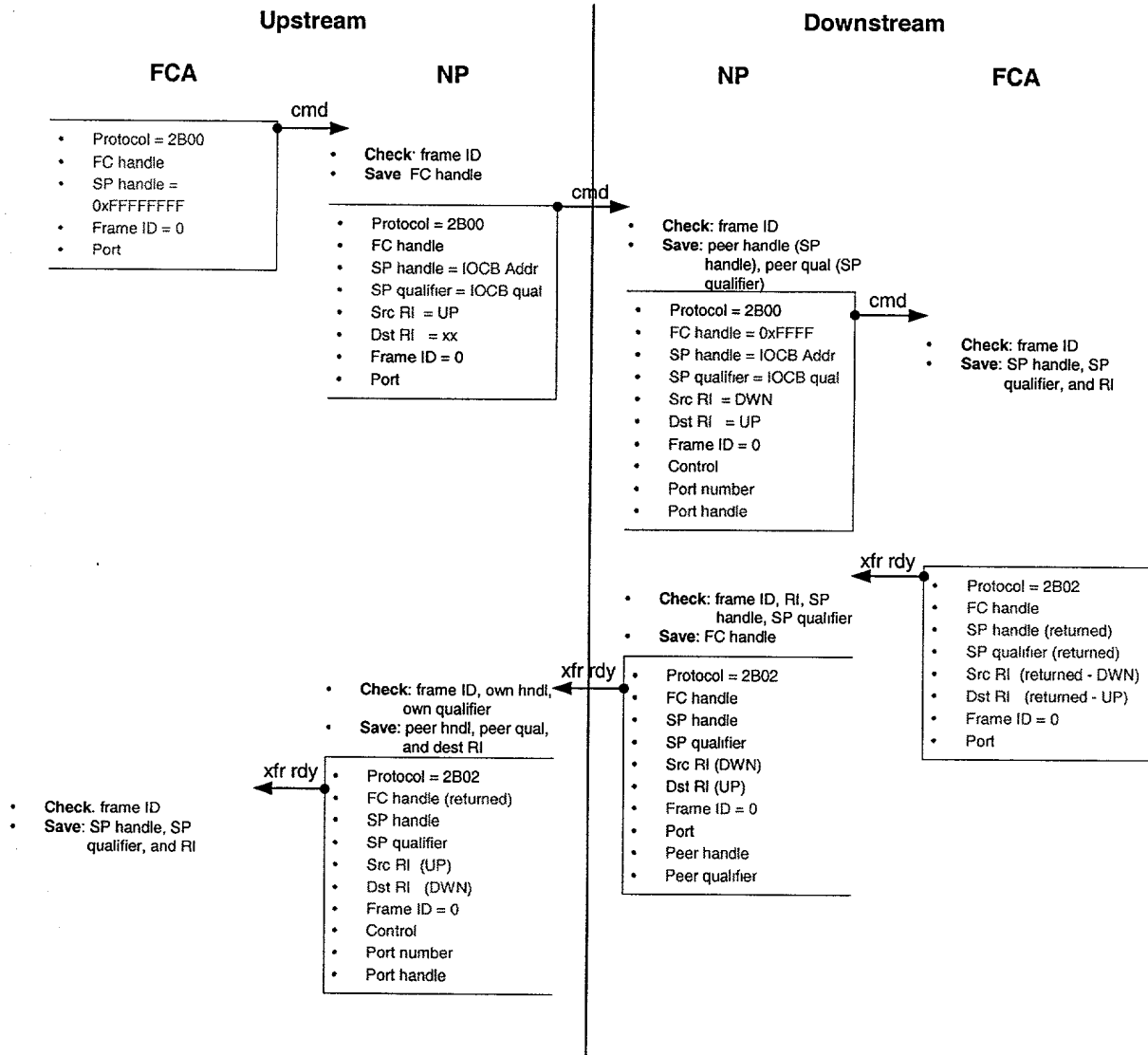


FIG.14